

REMARKS

With the present amendment, claim 13 has been amended. The remaining claims remain unchanged.

Claims 1-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Roberts (U.S. Patent Number 5,765,132) in view of Bayer (U.S. Patent Number 6,885,758).

CLAIMS 1-12

Independent claim 1 provides a method of decoding input. The method includes identifying possible sequences of words from the input. A class-based language model and a class entity dictionary are then used to select one of the possible sequences of words as an output sequence. A modification to the output sequence is received and this modification is used to change the class entity dictionary.

The combination of Roberts and Bayer does not show or suggest the invention of claim 1, because neither reference shows or suggests using a class-based language model and a class entity dictionary to select a sequence of words as an output sequence. In particular, Roberts does not discuss any form of a language model. Similarly, Bayer does not show or suggest class-based language models and in fact makes no reference to language models.

Since neither reference shows or suggests using a class-based language model to select a sequence of words as an output sequence, the combination of these references does not show or suggest the invention of claim 1 or claims 2-12 which depend therefrom.

CLAIMS 13-21

Claims 13-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Roberts in view of Bayer.

Claim 13 is directed to a computer-readable medium having computer-executable instructions that perform steps. These steps include generating a sequence of words based in part on a class entity dictionary that provides probabilities for entities in at least one class. A modification to the sequence of words is received such that a decoded entity in the sequence of words is modified into a modified entity. A probability of an entity in the class entity dictionary is then set based at least in part on at least one of the decoded entity and the modified entity where the probability provides the probability of the entity given a class.

The combination of Bayer and Roberts does not show or suggest the invention of claim 13, because neither reference shows or suggests setting a probability of an entity in a class entity dictionary where that probability is the probability of the entity given a class. In the current specification, this probability is referred to as the inside probability. Neither Roberts nor Bayer compute such a probability. As such, the combination of Roberts and Bayer does not show or suggest the invention of claim 13 or claims 14-21 which depend therefrom.

CLAIM 22

Claim 22 provides a method of adapting a class entity dictionary used with a class-based language model. The method includes receiving a user modification of a sequence of words that were identified based in part on the class-based language model and identifying a decoded segment that has been modified to become a modified segment in the user modification. A probability for the modified segment is then determined based in part on the decoded segment.

The combination of Roberts and Bayer does not show or suggest the invention of claim 22. In particular, neither

reference shows or suggest determining a probability for a modified segment based in part on a decoded segment.

In the Office Action, it was asserted that Roberts showed determining a probability for a modified segment based in part on a decoded segment at column 6, line 46 to column 7, line 5 because it generates a new model for a new word by approximating the syllables that correspond to the input word to calculate the model and because the new word would share some of the same syllables as the recognized word. Applicants respectfully dispute this assertion.

In the example given by Roberts, the word "how" is decoded by the system and is corrected to the word "cow". The word "how" is a single syllable word and the word "cow" is a single syllable word and these two syllables are not the same. As such, the syllable recognized or decoded is not shared by the new word.

In addition, the decoded word is not used in any form to determine the probability of the new word. In the example provided by Roberts, if the system had decoded the word "pit" rather than "how" and the user had changed "pit" to "cow", the same speech model probabilities would be calculated for the word "cow" as were calculated when the user changed the word "how" to "cow." The reason for this is that the probabilities are only based on which frames of the input speech signal are assigned to the word "cow" before generating the model for the word "cow." The decoded word has no barring whatsoever on the probability determined for the new word.

Similarly, Bayer makes no mention of determining a probability for a modified segment based on a decoded segment. As such, claim 22 is patentably distinct from the combination of Roberts and Bayer.

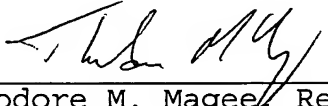
CONCLUSION

In the light of the above remarks, claims 1-22 are patentable over the cited art. Reconsideration and allowance of the claims is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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